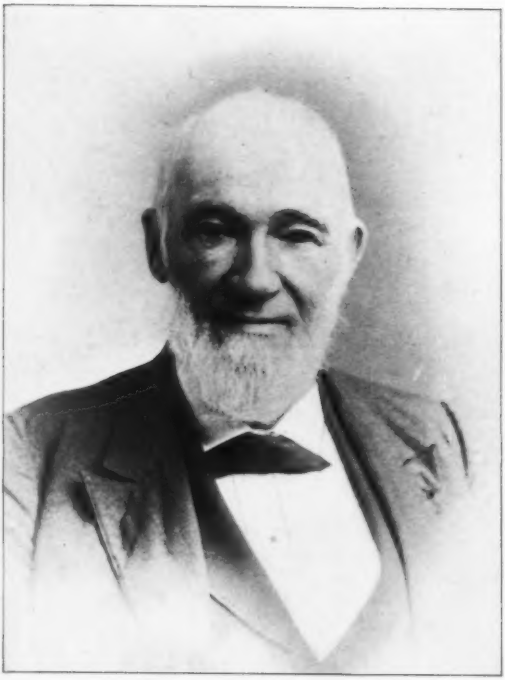

Dr. JOHN HAMILTON.

ENTOMOLOGICAL NEWS

AND

PROCEEDINGS OF THE ENTOMOLOGICAL SECTION,

ACADEMY OF NATURAL SCIENCES, PHILADELPHIA.

VOL. VIII. APRIL, 1897. No. 4.

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DR. JOHN HAMILTON.

Dr. John Hamilton, the well-known physician and entomologist, of Allegheny, Pa., died Friday, February 12th, at Pitts' Island, Lake Worth, Fla. He had been in feeble health and went to Florida early in January, where for a time his condition was improved. He died after a short illness. Dr. Hamilton was born in St. Clair, Columbiana County, Ohio, Feb. 17, 1827. He graduated from Duquesne College in 1846 and at Jefferson College, Canonsburgh, Pa., in 1847. He studied theology under the late Prof. James R. Willson, D.D., completing a four years' course in 1851. Later he studied medicine in the office of the late Dr. Dickson, of this city, and in 1856 graduated from the University Medical College, of New York. He first practiced his profession in Greenfield, Mercer County, Pa., where he spent six years, after which he removed to Allegheny, where he practiced his profession until his health failed four years ago. Dr. Hamilton was a cultivated physician and always a diligent student. His early education in theology was continued in Bible study and his religious life was nourished thereby. For many years he was a member of the Allegheny Reformed Presbyterian Church, of which he was a liberal supporter and to the welfare

of which he was greatly devoted. Dr. Hamilton is survived by Mrs. Hamilton, a daughter of the late David Culbertson. He was a brother of Dr. William R. Hamilton, George Hamilton and Mrs. Rosanna Corlett, both of Ohio.

Dr. Hamilton was an industrious and painstaking student of entomology and a careful collector and observer. He has made many important contributions to the literature of Coleopterology, to which order he was specially devoted. His papers were chiefly contributed to the "Canadian Entomologist," the "Transactions" of the American Entomological Society and ENTOMOLOGICAL NEWS; his last paper appearing in the latter journal in the February number of the present year. His first published article was "Remarks on *Agonoderus comma*, *pallipes*, *rugicollis* and *Tachycellus atrimedius*," in "Can. Ent.," xiv, 1882. There then followed more than thirty papers in the same journal all showing care and scientific acumen. Many of his papers were results of collecting trips to Canada and Florida and excursions in the vicinity of his home. As a sample of the extent of knowledge and the field covered, the following titles may be mentioned: Entomology at Longport, N. J., which would be a place suitable for an Enkentric Hospital; "Medico-Entomology;" Stings by *Polistes* and *Xylocopa*; Larva of *Hypoderma* in a child (ENT. NEWS). These show evidence of the observing physician as well as the careful naturalist. But our departed colleague will be best remembered by his valuable papers published in the "Trans. Am. Ent. Soc.," the most important of which were "Catalogue of the Coleoptera Common to North America, Northern Asia and Europe, with the Distribution and Bibliography" (1889). Second edition of the same (1894). "Catalogue of the Coleoptera of Alaska, with the Synonymy and Distribution" (1894). "Catalogue of the Coleoptera of southwestern Pennsylvania with Notes and Descriptions" (1895). "The Lamiinæ of North America," in which he was associated with Chas. W. Leng as author. His contributions to science will number upwards of seventy-five important papers. Dr. Hamilton will be sadly missed by the entomological world. He left a fine collection of Coleoptera.*

* We are indebted to the Rev. D. B. Willson, D.D., for the facts in regard to Dr. Hamilton's life.

JOHN L. CURTIS.

By VERNON L. KELLOGG, Stanford University, Cal.

Elsewhere in this number of the NEWS there is published, under the name of John L. Curtis, a description of a new spider and a brief abstract of some observations on the habits of this spider. The name of Mr. Curtis is not familiar to entomologists. I wish that some particulars of the patient, brave life of this promising student of entomology might be known to those whose attention may be arrested by the unknown name.

John Curtis, of Oakland, Cal., died at twenty-five. During the twelve years preceding his death his waking hours were passed in a wheeled chair. A paralytic affliction deprived him of the use of the muscles of body and legs and arms, except those of the wrists and hands. His consolation and delight were found in the study of natural history. After caring for and watching a solitary spider kept in confinement for several years, he began with earnest zeal the careful study of spiders. His friends sent them to him in such numbers, that at times, he had sixty or seventy species under observation. Wheeled by a companion along hedge-rows, he observed them in their natural homes and collected them. After three years of delighting, absorbing study, his eyes so failed him that he was limited, during two years, to one-half hour a day to microscopic or minute examination. In the last two years of his life with health failing constantly, he devoted himself exclusively to the observation of the new spider described elsewhere in the NEWS. He devised ingenious methods of housing and feeding and watering his spiders. He made exhaustive observations of their every habit, and recorded all in notes and drawings. Untrained, inert, helpless, tortured, his patient, enthusiastic devotion to his studies have enabled him to add something to our knowledge of living things and to find for himself happiness in the midst of affliction.

PICTURES for the album of the American Entomological Society, have been received from Professors C. P. Gillette, of Fort Collins, Col., Wm. Osburn, of Nashville, Tenn , and Wm. R. Reinick, Phila.

THE last number of the "Transactions" of American Entomological Society (No. 4, of vol. xxiii), contains a "Revision of the Genera and Species of Ceutorhynchini inhabiting North America, by Wm. G. Dietz, M.D." See notice on cover of this number.

ACORN INSECTS.

By Wm. Hampton Patton.

The Acorn Weevil.

The following species of *Balaninus* have been bred from acorns: *uniformis*, *nasicus*, *caryæ*, *rectus*, *quercus*, *coccineæ*.

From hickory-nuts have been bred: *caryæ*, and doubtfully other species.

From hazel-nuts has been bred: *obtusus* (the *nasicus* of Harrington.

From chinquepin and chestnut have been bred: *rectus* and *proboscideus* (*caryatrypes*). ["Insect Life," iv.]

Blanchard's Table (1884) may be abbreviated as follows:

First funicle joint longer than second.
  Female beak long as body or longer.
    Appendix of claws broad, rectangular . . . . . **obtusus.**
    Appendix of claws acute, narrow . . . . . **uniformis.**
  Female beak shorter than body (two-thirds or three-fourths).
    Femoral tooth with outer edge oblique.
      Scales beneath oval . . . . . **nasicus.**
      Scales beneath hair-like . . . . . **caryæ.**
    Femoral tooth with outer edge perpendicular.
      Thorax of female longer than wide . . . . . **rectus.**
      Thorax of female not longer than wide . . . . . **quercus.**
First funicle joint shorter than second . . . . . **caryatrypes.**

From the table is omitted *Balaninus coccineæ* (North Am. Ent., i, 1879, fig.). A specimen found at Hartford, Conn., has the beak short and a quadrangular fulvous area on disc of thorax. Other specimens ovipositing on *Q. coccinæ* have the beak much longer than body. Yet others are dark and with short beak.

Balaninus uniformis Lec. (body uniformly pale tawny, the beak as long as the body) I have bred from acorns of *Quercus macrocarpa*. The eggs, laid within the acorns the middle of September are short-oval, smooth and of a whitish color. The punctures are either through the cupule into the acorn or are through the shell of the acorn above the cupule. The usual crescent-shaped slit is made upon the kernel within the acorn even when the punctures appear externally to be merely small round dots. The result of the puncture is a decayed spot nearly a quarter of an inch in diameter containing the egg. The larvæ leave the acorns in November and remain about three inches be-

low ground until Spring before they become pupæ. I have found as many as six full-grown larvæ in one acorn of *Q. rubra*. As the beetles appear in May and June it is curious what becomes of them during the Summer. I have taken the beetle at large August 28th.

Pairing takes place upon the acorns in September, at the time of oviposition. It is probable that we have but one species in America, the characters given in the table above being insufficient to separate species. The concave first ventral distinguishes the males.

The Tineid Acorn Moth (*Holcocera glandulella* Riley).

The lavender-tinted larva muturing in early August spins in the partially-grown acorn of *Q. coccinea* while the acorn is yet covered by the cupule, the opening it prepares being eaten through both cupule and shell; one found August 10th had emerged through an opening close to the stem. A later brood of the same lavender-tinted larva occurs in acorns of *Q. coccinea* and *Q. rubra* in December, having taken the place of *Balaninus* and closed the beetle's exit holes with silk. The figure in Fifth Report U. S. Ent. Comm., may represent this brood. This *Gelechia* (*Laverna*, *Blastobasis* or *Holcocera*, as it has been variously called) is double brooded, the Autumn brood being inquilinous as described by Prof. Riley and Miss Murtfeldt, the Summer brood being independent. The larva has been described as pinkish, yellowish or grayish white. It is actually of a pale lavender tint.

———o———

SOME DELAWARE NOCTUIDÆ.

(See Pl. V.)

By Frank M. Jones.

The insects figured on the accompanying plate were not chosen for illustration, because they belonged to particularly interesting species; but because they presented marked contrasts in color and ornamentation, hence, making a more thorough test of this method of illustration. A pen-drawing was made of the insects—scale, one and a half-inches to the inch; and, in making the half-tone plate, a two hundred mesh to the inch screen was used,

and the figures reduced to natural size. The following notes may be of interest :—

Mamestra nimbosa.—Rare, at sugar.

Cerma cora.—May and June in Delaware ; August, Hamlet, N. C., at sugar.

Zale horrida.—Common at sugar, May, June, July and August, in Delaware ; also at Hamlet, N. C., in August.

Cirrœdia pampina.—September, at sugar.

Mamestra adjuncta.—Bred. Larva entered ground June 25th ; moth emerged August 5th.

Melipotis limbolaris.—Apparently rare here.

Moma fallax.—Sugar and electric light. June and July in Delaware, and at Hamlet, N. C., in August.

Chamyris cerintha.—Not uncommon, May and June.

Poaphila quadrifilaris.—Locally common, Delaware and Maryland, in May, June and July.

Agnomonia anilis.—Milledgeville, Ga., August 3d and 4th. This insect strikingly resembles the preceding species, not only in appearance (both are velvety brown, band with white), but also in habits of flight ; both species are usually rather difficult to approach, flying readily by day, with a quick, dodging flight.

A GREEK fable says that one day two players on the cithara, Eunomus and Ariston, making a trial of their skill, one of the cords of Eunomus's instrument breaking, a cicada flew down and perched upon it and replaced the sound with such success that it carried off the palm of victory. It appears that the boys of Provence, according to Perrin, captured the cicada by holding behind the singing insect a long reed and whistling without interruption an air. Gradually the cicada descends, walks along the reed, and finally reaches the hand of the whistler, who has only to close his fingers to capture the insect. This story was called out by a recent communication by Professor Lataste, of Santiago, Chile, to the Entomological Society of France, who describes the way in which the Chilean boys capture cicadas. They clap their hands on a cord or rhythm more or less like that of the song of the cicada, when it alights on the boy's back, on his hat, and soon perches on his hand. Dr. Horrath tried the experiment himself on the shores of the Adriatic on two large cicadas. Rapidly clapping his hands at the foot of an olive tree in which a cicada was singing, the insect, usually timid and shy, did not interrupt its song, but went on with it, and soon leaving its perch it descended down the trunk near the observer, and seemed so hypnotized by the clapping, that he could almost touch it without its flying away. This shows that it is by the sense of hearing that it notices the clappings of the hands.

ENTOMOLOGICAL NEWS.

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Outside of the United States and Canada $1.20.

☞ All remittances and communications should be addressed to ENTOMOLOGICAL NEWS, Academy of Natural Sciences, 19th and Race Streets, Philadelphia, Pa.

PHILADELPHIA, PA., APRIL, 1897.

GOVERNMENT ENTOMOLOGY.

Under this title the New York *Sun*, of March 11, 1897, has the following editorial:

One of the latest issues of the Government Printing House, the most industrious publishing shop in the world, comes from the Division of Entomology of the Department of Agriculture, and describes "Some Miscellaneous Results of the Work of the Division of Entomology." These results, of singular importance to agriculture, include the larvæ cells of a species of *Megachile* or leaf-cutter bee, found in "a disused bed between the sheet and quilt." All entomologists and farmers will rejoice to learn that "an attempt will be made to rear the adult." An *Agelæus phœniceus*, or red winged starling, has been seen, in some place not mentioned, "busily engaged in eating the larvæ of the cottonwood leaf *minero*." It is gratifying to know that the red winged starling has got work and is doing it as heartily as if he were a Government entomologist. The *Oreodera glauca*, or longicorn beetle, has been boring orange trees in Jamaica. The *Sitodrepa panicea*, more poetically known as the drug store beetle, is in the quartermaster's depot at San Francisco, "damaging boots by boring into the leather near the straps, where an excess of paste was used." Bisulphide of carbon is prescribed for the suffering boot. The prohibitionists will be glad to learn *Xyleborus pubescens* and *Monarthrum mali* are boring into wine casks and causing leakage in Pomona, Fla., and Nickajack, Ga., respectively. A red mite, beautifully named *angelita*, little angel, but said to be a member of the *Trombidium magnicum*, is on view in Arizona. A specimen of *Bittacus pilocornis* has attracted much attention in Brookville, Ind., "on account of their efficiency in catching flies. August 26,

about twenty of them were observed in the office of the principal hotel in Brookville, catching and killing flies." The horn-fly made its first appearance in Hancock County, Ill., about May 2, 1895. For the especial benefit of farmers this description of the female of *Coccophagus fletcheri* is here set down in its original simplicity. [Then follows the purely technical description]

This is the kind of stuff with which the fly catchers of the Division of Entomology catch flies. It must be added that *Myzus mahaleb* has the misforture to have "frontal tubercles more or less distinctly gibbous, though never prolonged and porrected, as in *Ph. humuli.*" Well, the reports of the Department of Agriculture will not cease to be amply prolonged and porrected.

We believe that none who read this will be blind to the brilliancy of this solar display. But this editorial is not the only important and highly entertaining piece of information which this same issue of the *Sun* for March 11th contains. On page 10 we read the advertisement of a plumber who "wants situation as foreman, or take charge of shop; well up in estimating and laying out work." Our limited experience with plumbers has led us to the belief that for estimating and laying out work they have no equals, but the difficulty always is to get them to complete work they have once laid out. We are consequently pained to find that the *Sun* permits the use of its beams to a plumber who promises to do nothing more than to "estimate and lay out work." Of Rockland Cemetery-on-the-Hudson, we have the pithy statement (page 7): "A rare location. Easily reached,"—whether by laudanum, or some still more speedy means, we are not informed. The "rareness" of the location doubtless refers to the circumstance that many reach it but once—and stay there. In a criticism (page 3) of a presentation of Wagner's "Flying Dutchman," we are told of Madame Gadski, who took the part of Senta, that "vocally her attempt was in a large degree successful, which can hardly be deponed of any of the other members of the company who took part last evening." For the sake of the New Yorkers we hope that when the "Flying Dutchman" is again produced, the *Sun* will have something more favorable to "depone."

It would be manifestly unfair to quote these plumbing and cemetery advertisements and opera criticism as giving a full and accurate idea of the contents of the *Sun* for March 11, 1897. But it is just such a method which the *Sun* has adopted, in its

editorial above quoted, to give a false idea of the contents of the Government publication on Entomology under review, and to create a prejudice against, and a contempt for, such publications among those who will not see them in the original. If the reader will refer to the list of Entomological Literature given in this number of the NEWS, he will find (No. 37) a summary of the contents of this bulletin over which the *Sun* makes merry. He will observe that the last item in that summary is "Notes from Correspondence." These Notes occupy three-and-a-half pages and are printed in smaller type than the rest of the bulletin. It is expressly stated in the preface to the bulletin that these Notes "may seem more or less insignificant themselves, are read with interest and profit by very many persons of different occupations, and it has frequently happened that the first record of a fact of much value has been made in this way." Yet it is from these "Notes" that all the *Sun's* quotations are taken, with the exception of the description of *Coccophagus fletcherii* and the reference to *Myzus*. Anyone reading the *Sun's* editorial would certainly form the opinion that the *Sun's* quotations represented the chief contents of the Bulletin.

Again, the *Sun's* reference to "all entomologists and farmers" would lead one to suppose that this bulletin was chiefly intended for the use of these two classes. Yet the preface to the bulletin expressly declares that it is one of a series for the publication of information of great value to economic and systematic entomologists and of very considerable, general interest, as well as of much practical importance, which is constantly accumulating in the Division. The *Sun* does not notice this plain statement of the purpose of the bulletin, nor inform its readers that separate farmers' bulletin are issued, distinctly marked as such (see No. 38 in the Ent. Literature in this NEWS). The *Sun* does not raise the question whether a portion of the national funds should or should not be devoted to entomological research and publication. It conveniently ignores the valuable papers which make up 75 of the 87 pages of the object of its attack, ignores those recent bulletins of the Division of Entomology on Household Insects and on Insects affecting Domestic Animals, holds up to ridicule the word "porrected," which we believe is infrequently used even by entomologists, and yet "depones" something of an operatic troupe, and by a display of cheap wit seeks to create an ignorant prejudice which may destroy one of the most useful scientific bureaus of the Government. Unfortunately, the *Sun's* attack will be read more widely than the defenses which may be made against it.

The *Sun's* editorial is unfair and misleading. That it is so will not greatly surprise even those whose acquaintance with that unhappily named *news*paper is but slight.

Notes and News.

ENTOMOLOGICAL GLEANINGS FROM ALL QUARTERS OF THE GLOBE.

[The Conductors of ENTOMOLOGICAL NEWS solicit, and will thankfully receive items of news, likely to interest its readers, from any source. The author's name will be given in each case for the information of cataloguers and bibliographers.]

To Contributors.—All contributions will be considered and passed upon at our earliest convenience, and as far as may be, will be published according to date of reception. ENTOMOLOGICAL NEWS has reached a circulation, both in numbers and circumference, as to make it necessary to put "copy" into the hands of the printer, for each number, three weeks before date of issue. This should be remembered in sending special or important matter for certain issue. Twenty-five "extras" without change in form will be given free when they are wanted, and this should be so stated on the MS. along with the number desired. The receipt of all papers will be acknowledged.—ED.

ON examining the mass of beetles sent us by Mr. C. V. Piper, which were collected on the summit of Moscow Mountain, Idaho, and sembling habit noted in the March number of the NEWS under the name of *Coccinella transversogutta*, we find them all to be *Hippodamia lecontei*.—ED.

INSECT LIFE IN ARIZONA.—Mr. and Mrs. J. T. Mason, of this city, are entertaining this week two distinguished naturalists, who have made extensive researches in the Western field. The guests are David Bruce, the world's greatest entomologist, and Dr. Richard E. Kunze, a physician of New York city, who has just completed a campaign of five and a half months among the insects of Arizona, and is so greatly charmed with Colorado that he has decided to take up his residence in this State. Dr. Kunze talked in a most entertaining manner last evening of his trip through Arizona, and the peculiarities of insect life in the far Southwest.

"Arizona," said he, in the course of his remarks, "is the El Dorado of the entomologists. The variety of insect life in Arizona has for years made the region a favorite field for students and collectors, but every year new species are found, and new species will be found for years to come."—*Denver News*

IT WAS at the breakfast table and the subject took an entomological turn. "Did you see that advertisement in the *Transcript* about the chair?" asked Mater. "No," said Pater; "what was it?" "Why, there was someone offering a couple of antique chairs, and mentioned, as a special inducement, that one of them contained a borer." "That must have been satirical," said Pater; "No, it was put in in good faith," Mater replied, and rising from the table, found the notice in question and read as follows:—

TWO ANTIQUE CHAIRS

FOR SALE. Heirlooms in vogue in 1776. One contains wood-borer; gnawing plainly heard. Address W. M. P., Boston Trans.

"It must be a remarkably antique borer," said Pater. "It will do very well," remarked Pater, "but I think the old bedbug story will cap it." "What was that?" asked ego, "A man had an old skillet, which had seen much hard use for two generations. One day he broke it, and a bedbug fell out and started at once for upstairs," "Cast in?" exclaimed Homo; "Exactly." "I wonder," mused Mater, "if that man was any relation to the one at the hotel?" "What about him?" "One day he put up at an old hotel, and on coming down-stairs for the first time, he found "one" on the register endeavoring to make out the number of his room." "I guess so," remarked Omnes.

Identification of Insects (Imagos) for Subscribers.

Specimens will be named under the following conditions: 1st, The number of species to be **limited to twenty-five** for each sending; 2d, The sender to pay all expenses of transportation and the insects to become the property of the American Entomological Society; 3d, Each specimen must have a number attached so that the identification may be announced accordingly. Exotic species named only by special arrangement with the Editor, who should be consulted before specimens are sent. Send a 2 cent stamp with all insects for return of names. **Please put date of capture and exact locality on each specimen.** Before sending insects for identification, read page 41, Vol. III. Address all packages to ENTOMOLOGICAL NEWS, Academy Natural Sciences, Logan Square, Philadelphia, Pa.

Entomological Literature.

Under the above head it is intended to note such papers received at the Academy of Natural Sciences of Philadelphia pertaining to the Entomology of the Americas (North and South). Articles irrelevant to American entomology, unless monographs, or containing descriptions of new genera, will not be noted. Contributions to the anatomy of insects, however, whether relating to American or exotic species will be recorded.

1. TRANSACTIONS OF THE AMERICAN ENTOMOLOGICAL SOCIETY, xxiii, 4, October–December, 1896. Philadelphia. Received Feb. 16, 1897.—Revision of the genera and species of Ceutorhynchini inhabiting North America, W. G. Dietz, 3 pls. List of members of the American Entomological Society.

2. MONITORE ZOOLOGICO ITALIANO, viii, 1. Florence, January, 1897.—A. Berlese's 'Ricerche sugli organi e sulla funzione della digestione negli Acari,' S. Carazzi. E. Verson's 'La borsa copulatrice nei Lepidotteri,' id.

3. COMPTES RENDUS. L'ACADEMIE DES SCIENCES. Paris, Jan. 25, 1897.—On the biology of the brilliant *Hylesinus* [*Dendroctonus micans*], A. Menegaux and J. Cochon. On the pseudo larval copulation of some plumicolous Sarcoptidæ, S. Jourdain. Phenomena of autotomy observed in the nymphs of *Monandroptera inuncans* Serv. and of *Rhaphiderus scabrosus* Serv., E. Bordage.——February 15.—New observations on the Sesamias, lepidoptera injurious to maize, sugar-cane, sorghum, etc.; the

autumno-hibernal generations of *Sesamia monogrioides* Lefevre, J. K. d'Herculais. Morphology of the appendages of the anterior extremity of the mid-gut of Orthoptera, L. Bordas. Phenomena of autotomy in the Phasmidæ of the genera *Monandroptera* and *Rhaphiderus*, E. Bordage.

4. LA FEUILLE DES JEUNES NATURALISTES. Paris, February, 1897.—Phylogeny of the Carabi, archetype of *Carabus*, G. de Lapouge.

5. NATURWISSENSCHAFTLICHE RUNDSCHAU. Braunschweig, Feb. 6, 1897.—The light of the St. John beetle [Johanniskäfer], H. Muraoka.—March 6, 1897.—R. Heymons on the embryonic development of the Dermaptera and Orthoptera with special respect to the formation of the germ-layers, K.

6. PROCEEDINGS OF THE AMERICAN PHARMACEUTICAL ASSOCIATION at the Forty-fourth annual meeting held at Montreal, Canada, August, 1896. Baltimore, 1896.—Poisonous honey, L. F. Kebler.

7. BULL. DE LA SOCIETE NATIONALE L'ACCLIMATATION DE FRANCE. Paris, October, 1896.—Applied entomology in Europe (concl.), Dr. P. Marchal.

8. 24 JAHRESBERICHT DES WESTFAELISCHEN PROVINZIAL-VEREINS FUR WISSENSCHAFT UND KUNST, 1895-96. Münster, 1896.—Honey dew, H. Reeker. Bleeding of Coccinellidæ, id.

9. LE NATURALISTE. Paris, Feb. 1, 1896.—*Eumenes pomiformis* F. and its victims, P. Chretien.——February 15.—A pseudoneuropterous larva from Chili having the appearance of a Crustacean, F. Lataste.

10. BULLETIN DE LA SOCIETE DES SCIENCES NATURELLES DE L'OUEST DE LA FRANCE, vi, 3. Nantes, Sept. 30, 1896,—Note on *Echinomyia fera* L., copulation, genital apparatus, reproduction, habits, E. Marchand, 1 pl.

11. THE VICTORIAN NATURALIST. Melbourne, December, 1896.—A catalogue of Victorian Heterocera, pt. xxii, O. B. Lower.

12. VERHANDLUNGEN DES NATURHISTORISCHEN VEREINS DER PREUSSICHEN RHEINLANDE, WESTFALENS UND DES REG.-BEZIRKS OSNABRUCK, lii, 2. Bonn, 1895. Received Feb. 20, 1897.—A contribution to the knowledge of the Glomeridæ, C. Verhoeff, 1 pl.

13. BULLETIN SCIENTIFIQUE DE LA FRANCE ET DE LA BELGIQUE, xxix, 2. Paris, Jan. 27, 1897.—Researches on the internal complementary organs of the genital apparatus of Orthoptera, A. Fenard, 5 pls.

14 THE TRANSACTIONS OF THE ENTOMOLOGICAL SOCIETY OF LONDON, 1896, part v. Jan. 30, 1897.—President's address. The utility of specific characters and physiological correction, Prof. R. Meldola.

15. THE ANNALS AND MAGAZINE OF NATURAL HISTORY. London, February, 1897.—A contribution to the biology of the social wasps of Brazil, H. von Ihering (transl. from Zool. Anz. No. 516). Contributions

from the New Mexico Biological Station, No. iv. Diptera from the Sacramento and White Mountains in southern New Mexico, 1, C. H. T. Townsend. The physiological importance of the air-spaces in flying animals, R. von Lendenfeld (transl. from Biol. Centrbl. Nov. 1, 1896).

16. RECORDS OF THE AUSTRALIAN MUSEUM, iii, 1. Sydney, Jan. 7, 1897.—Additional localities for *Peripatus leuckartii* Säng., the late F. A. A. Skuse.

17. NATURAL SCIENCE. London, February, 1897.—Are the Arthropoda a natural group?, Capt. F. W. Hutton, H. M. Bernard, G. H. Carpenter, C. Claus, H. J. Hansen, A. von Jaworowski, J. S. Kingley, M. Laurie, R. I. Pocock, T. R. R. Stebbing. The scientific arrangement of insect collections.

18. EXPERIMENT STATION RECORD, viii, 5. U. S. Dep't of Agriculture, Washington, 1897.—Summaries of recent papers on economic entomology.

19. ARCHIV FUR NATURGESCHICHTE, lxii, 1, 2. Berlin, November, 1896.—On the abdomen of the Scolytidæ, a contribution to the comparative morphology of the hind body of the Coleoptera, Dr. C. Verhoeff, figs., 2 pls.

20. BULLETIN 124. Cornell University Agricultural Experiment Station. Ithaca, N. Y. January, 1897.—The pistol-case bearer in western New York, M. V. Slingerland, figs., 1 pl.——126. February, 1897.—The currant-stem girdler and the raspberry-cane maggot, M. V. Slingerland, figs.

21. LE NATURALISTE CANADIEN. Chicoutimi, Quebec, January, 1897. —Coleopterological fauna of Manitoba (cont.), G. Chagnon.

22. CONTRIBUTIONS FROM THE DEPARTMENT OF ZOOLOGY AND ENTOMOLOGY, Iowa State College of Agriculture and Mechanic Arts. Reprint from Proc. Iowa Acad. Sci., iii. Des Moines, 1896.—A study of the genus *Clastoptera*, E. C. Ball, 4 pls. Observations on the Cicadidæ of Iowa, H. Osborn, 1 pl. Biologic notes on certain Iowa insects, H. Osborn and C. W. Mally, figs. Contributions to a knowledge of the Thripsidæ of Iowa, A. M. Beach. Note on a new species of *Phlæothrips*, with description, H. Osborn.

23. ARCHIV FUR MIKROSCOPISCHE ANATOMIE, xlviii, 4. Bonn, Jan. 28, 1897.—On the structure of the nuclei in the spinning glands of caterpillars, Dr. F. Meves, 1 pl.

24. BULLETIN DE L'ACADEMIE DES SCIENCES, DES LETTRES ET DES BEAUX ARTS DE BELGIQUE (3) xxxiii, 1. Brussels, 1897.—How flowers attract insects—experimental researches, part 3, F. Plateau.

25. THE PROCEEDINGS OF THE LINNEAN SOCIETY OF NEW SOUTH WALES (2) x, 4. Sydney, April 29, 1896.—Notes on Cicadas, W. W. Froggatt.—1896, 1. July 16, 1896. The entomology of the grass trees (*Xanthorrhœa*), W. W. Froggatt, 1 pl. Observations on *Peripatus*, T.

Steel.—Supplement to this last part—Catalogue of the described Coleoptera of Australia, supplement part ii, G. Masters. All received Feb. 25, 1897.

26. LE COCCINIGLIE ITALIANE VIVENTI SUGLI AGRUMI. Parte iii. I Diaspiti. Dr. Antonio Berlese. Firenze, 1896.—From Rivista di Patologia Vegetale iv, pp. 203–477. 200 text figs., 12 pls.

27. TRANSACTIONS OF THE TEXAS ACADEMY OF SCIENCE for 1896, 1, 5. Austin, 1897.—The poison of centipedes (*Scolopendra morsitans*), W. W. Norman.

28. DIE BIENEN EUROPA'S (Apidæ Europææ) nach ihren Gattungen, Arten und Varietæten auf vergleichend morphologisch-biologischer Grundlage bearbeitet von Heinrich Friese. Theil III Solitäre Apiden. Genus *Podalirius*. Berlin, R. Friedlaender and Sohn 1897. Pp. vi, 316. 61 text figs.

29. THE NEW YORK MEDICAL JOURNAL. March 6, 1897.—The mosquito as a vehicle of malaria.

30. SYSTEMATISCHE PHYLOGENIE DER WIRBELLOSEN THIERE (Invertebrata). Von Ernst Haeckel (Jena). Zweiter Theil des Entwurfs einer systematischen Phylogenie. Berlin, 1896.—Verlag von Georg Reimer. 8vo. pp. xviii, 720. Phylogeny of Tracheata, pp. 662–712.

31. ENTOMOLOGISKE MEDDELELSER. Copenhagen, 1896.—[On Danish species of *Nematus*, *Lophyrus* and *Lyda*], H. Borries.

32. BIOLOGIA CENTRALI-AMERICANA. Part cxxxii. London, December, 1896. Arachnida-Araneidea, pp. 209–224, pl. xxii, O. P. Cambridge. Coleoptera, ii, 1, pl. xv, D. Sharp; iii, 1, pl. xxv, G. C. Champion. Hymenoptera, ii, pp. 393–400, P. Cameron. Lepidoptera Heterocera, ii, pp. 321–336, pl. lxviii, H. Druce. Diptera, ii, pp. 321–344, pl. viii, F. M. Van der Wulp. Orthoptera, pp. 201–216, pl. xi, H. de Saussure.

33. THE ZOOLOGIST. London, Feb. 15, 1897.—Museum Reports I.—Musée Royal d'Histoire Naturelle de Belgique, Brussels, G. Severin, figs. A proposed explanation as to the appearance of light and dark colored butterflies during the day.—ED. [W. L. Distant].

34. JOURNAL OF THE NEW YORK MICROSCOPICAL SOCIETY, xiii, 1. January, 1897.—Structure of the musical rasps of tree crickets (*Oecanthus*), Rev. J. L. Zabriskie.

35. THE CANADIAN ENTOMOLOGIST. London, Ont., March 1897.—The blueberry span-worm (*Diastictis inceptaria* Walk.) and the bumble flower-beetle (*Euphoria inda* Linn.) M. V. Slingerland, 1 pl. Descriptions of some new genera and species of Canadian Proctotrypidæ, W. H. Ashmead. A new water bug from Canada, id. *Mamestra circumcincta* Smith, J. B. Smith. *Monodontomerus* in Appalachia, W. H. Patton. The Coleoptera of Canada—xxi. Chrysomelidæ (concl.), H. F. Wickham,

figs. On the Mexican bees of the genus *Augochlora*, C. Robertson. New forms of *Osmia* from New Mexico, T. D. Cockerell. Notes on *Eupoeya* and the Megalopygidæ, H. G. Dyar. Further notes on *Augochlora*, T. D. A. Cockerell. A new Pyralid, Mary E. Murtfeldt.

36. PSYCHE. Cambridge, Mass., March, 1897.—Notes on New England Acrididæ—iii. Oedipodinæ—ii, A. P. Morse, 1 pl. Diptera from the head waters of the Gila River—i, C. H. T. Townsend. A southern race of *Datana perspicua* Gr. and Rob. (var. *mesillæ*), T. D. A. Cockerell. Life-history of *Syntomeda minima* Gr., H. G. Dyar. [Orthoptera on Mt. Desert Is.], S. H. Scudder. [Orthoptera of Bermuda], id.

37. BULLETIN No. 7. New Series. U. S. Dept. of Agriculture, Division of Entomology. Washington. 1897.—Some miscellaneous results of the work of the Division of Entomology. Prepared under the direction of L. O. Howard, Entomologist. The Ambrosia beetles of the United States, H. G. Hubbard, figs. Grasshopper reports for 1895 and 1896, L. Bruner. Some insects affecting the hop-plant, L. O. Howard, figs. The plum plant louse (*Myzus mahaleb* Fonsc.), T. Pergande. The rose-leaf beetle (*Nodonota puncticollis* Say), F. H. Chittenden, fig. A case of excessive parasitism, L. O. Howard. The walnut span-worm (*Boarmia plumigeraria* Hulst), D. W. Coquillett, figs. Insect injury to chestnut and pine trees in Virginia and neighboring states, F. H. Chittenden, figs. General notes. Notes from correspondence.

38. FARMERS' BULLETIN No. 47. U. S. Dep't of Agriculture. Washington, January, 1897.—Insects affecting the cotton plant. By L. O. Howard, Ph.D., Entomologist. Reprinted, with revision by the author, from Bulletin 33, Office of Experiment Stations. Figs.

39. CIRCULAR No. 18. Second Series (revision of No. 14). U. S. Dep't of Agriculture, Division of Entomology. Washington. Feb. 4, 1897.—The Mexican cotton-boll weevil (*Anthonomus grandis* Boh.), L. O. Howard, figs.

40. LE NATURALISTE CANADIEN. Chicoutimi, Quebec, February, 1897.—New names of Hymenoptera, Abbe Huard. Coleopterological fauna of Manitoba (cont.), G. Chagnon.

41. THE ENTOMOLOGIST'S RECORD. London, Feb. 15, 1897.—Beetles that destroy forests (the Scolytidæ), C. Morley.

42. ANNALES DE LA SOCIETE ENTOMOLOGIQUE DE BELGIQUE, xli, 1. Brussels, Feb. 20, 1897.—Descriptions of new Arachnids, E. Simon. South American Heterocera, P. Dognin.

43. TERMESZETRAJZI FUZETEK, xx, 1–2. Budapest, Feb. 1, 1897.—Monograph of the bee genus *Panurgus* Panz. (Palæarctic species), H. Friese. The Ichneumonid genus *Hemiteles* with a review of the European species, Dr. O. Schmiedeknecht. On the feeding of *Vespa germanica* Fabr., J. Pungur. [These three papers are in German].

44. SOCIETAS ENTOMOLOGICA. Zurich-Hottingen, Feb. 15, 1897.—Raising beetles in a wire gauze cage, A. Jahn.——March 1.—A sound producing apparatus in *Parnassius apollo* C. Frings.

45. THE ENTOMOLOGIST. London, March, 1897.—The probable chemical and physical nature of the pigments of Lepidoptera, excerpt from A. G. Mayer's "The development of the wing-scales and their pigment in butterflies and moths" (Bull. Mus. Comp. Zool, xxix, 5, 1896). The probable causes of the decadence of British Rhopalocera, W. Harcourt-Bath. A catalogue of the Lepidoptera of Ireland (cont.), W. F. de V. Kane.

46. THE ENTOMOLOGIST'S MONTHLY MAGAZINE. London, March 1897.—On the use of the term tegula in Diptera, D. Sharp. Notes on *Oligotoma insularis* McLach. (Embiidæ), and its immature conditions, R. C. L. Perkins. Coleoptera in the nests of Aculeate Hymenoptera, W. H. Tuck. Notes on Coccidæ from the Royal Gardens, Kew, E. E. Green.

47. ENTOMOLOGISK TIDSKRIFT, xvii, 1-4. Stockholm, 1896.—Report of the Royal Agricultural Entomologist, for 1895, S. Lampa. The hair-forming skin glands of caterpillars, E. Holmgren, 1 pl. (in German). Physapod notes, F. Trybom, figs. Collembola on snow and ice, H. Schött, 1 pl. Myrmecological notes, G. Adlerz. Forest insects 1886-1895, J. Meves. Many short notes on economic entomology, all in Swedish.

48. SCIENCE GOSSIP. London February, 1897.—[Acarine] Parasite of tortoise, S. Howarth, fig. Scale insects. Coccidæ associated with ants, T. D. A. Cockerell.

49. MEMOIRES DE LA SOCIETE ROYALE DES SCIENCES DE LIEGE (2) xix. Brussels, January, 1897.—New Elateridæ, vi, Dr. E. Candeze.

50. OTTAWA NATURALIST, January, 1897.—Ottawa spiders and mites, W. H. Harrington.

51. THE OBSERVER. Portland, Conn., July, 1896.—Anatomy of the May beetle, M. A. Willcox, figs. Directions for the practical study of the grasshopper, id. The honey-bee and her wax, Fr. Dienelt.

52. THE GARDENERS' CHRONICLE. London, Feb. 27, 1897.—To clear mealy-bug from grape-vines, D. J. H.

53. ENTOMOLOGISCHE NACHRICHTEN, xxiii, 4. Berlin, February, 1897.—[Corrections of] Dr. G. Schoch's Catalogus systematicus Cetonidarum et Trichiidarum ad huc cognitarum, Dr. K. M. Heller. On the Xyelini, tribe of the Tenthridinidæ, F. W. Konow.

54. SPECIES DES HYMENOPTERES D'EUROPE ET D'ALGERIE. Fondé par Edmond André et continué sous la direction scientifique de Ernest André. 57e fascicule. Paris, Vve. Dubosclard, Jan. 1, 1897. Pp. 1-64, pls. i-iii, of Tome vii, Cynipidæ, Abbé J. J. Kieffer.

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Doings of Societies.

PHILADELPHIA, March 9, 1897.

A stated meeting of the Feldman Collecting Social was held on March 9, 1897, at the residence of Mr. H. W. Wenzel, 1509 S. 13th Street. Members present: Messrs. Boerner, E. Wenzel, H. Wenzel, Seiss, A. Hoyer, Johnson and Kemp. Honorary members: Drs. H. Skinner and J. B. Smith. Visitors: Messrs. E. and S. Klages. Vice-President, Dr. Castle, in the chair.

A letter from Dr. Horn acknowledging the Social's expression of regret in regard to his present illness was read.

Mr. Edw. Klages exhibited specimens of wood bored by *Scolytus muticus*. The species only attacks dead wood as far as the speaker was aware; and this seems to be indicated by the fact that specimens of the beetle collected had bred twice in the same wood. Several species of Longicornia had also emerged from the same wood. Further discussed by Messrs. Smith, H. Wenzel and E. Klages, the latter stating that he had seen a parasitic wasp attacking the mature *Scolytus* and in one instance the ovipositor of the wasp had become fastened in the beetle.

Prof. Smith remarked on the recent investigations of Mr. Hubbard in the Southwest. He enumerated some of the rarities obtained by that gentleman, which included specimens of the almost unique *Dinopate wrightii*. Mr. Hubbard had found this species to oviposit in the live palm tree and not in dead wood as had been supposed.

Mr. H. Wenzel pointed out some of the characteristics of *Dinopate wrightii* and exhibited a box of some allied Bostrychidæ.

Mr. Seiss mentioned having received a large spider of the family Lycosidæ, from Brazil, which had been observed by the collector to capture a small fish.

Dr. Skinner referred to recent literature on the transmission of disease by insects. The common house fly and the mosquito were transmitters of disease, malaria in particular being transmitted by the mosquito.

Prof. Smith added that the mosquito becomes infested in its larval stage with the malarial germ. It is well known that protection against mosquitoes is a safeguard against malaria in tropical countries. Further discussed by Drs. Skinner and Smith.

The habits of the common flea were discussed by Messrs. Smith, Johnson, Boerner and Skinner. Mr. H. Wenzel asked regarding the flea infesting field-mice. Some mice nests collected by him contained hundred of fleas which had escaped in his house, but they did not prove troublesome as is the case with the common flea.

Prof. Smith stated that they represented another species with different habits for which reasons they did not attack man.

Mr. Wenzel exhibited some Californian Coccinellidæ recently received. All the introduced species which had established themselves in the country were represented in the lot.

No further business being presented the Social adjourned to the annex at 10.30 P.M.

WILLIAM J. FOX, *Secretary, pro tem.*

The Entomological Section

ACADEMY OF NATURAL SCIENCES, PHILADELPHIA.

PROCEEDINGS OF MEETINGS.

The following papers were read and accepted by the Committee for publication in ENTOMOLOGICAL NEWS:

THERIDIUM INCONSTANS:—A new spider.

By JOHN L. CURTIS.

[The following description of a new spider from the Pacific coast I have extracted from the notes made by the late Mr. John Curtis, of Oakland, Cal., whose enthusiasm and persistence enabled him, despite fearful physical misfortune and suffering, to

make an elaborate series of observations on the life-history of this new spider. I have added to the description, which is in Mr. Curtis's words, a brief abstract of a few of the interesting observations included in the mass of notes now in my hands.—Vernon L. Kellogg, Stanford University, California.]

Theridium inconstans n. sp. ♀.—Upper cephalo-thorax polished yellow or nearly white, with central band of emerald or olive-green on side rims of the same. The band is usually divided longitudinally into four parts forward of the thoracic denture and three parts back of the same. Under side like upper, with a tinge of green from the upper band. Abdomen egg-shaped, pointed at apex, polished and slightly pubescent. Upper back-ground color yellow, greenish yellow or white (translucent) with a central five-scalloped, opaque, granular band of white or yellow, and white side bands. At the fore end of the central band is a forward-pointing black "V," while between the central and side bands are three or four oblique rows of three dots each, set across the space of clear back-ground. Between each of these rows, called for convenience "regular," is a shorter parallel row of three dots called an "inter" row. There may be six or seven rows with corresponding inters, but the last rows do not have the full number of dots. The first three regular rows commonly have granular streaks with them called "bridges," spanning from the central to the side band. Abdomen underneath yellowish white and translucent, especially when seen sidewise, with a black epigynum and an oblique streak of pigment on each side near the middle of the length. Legs yellowish or nearly white, translucent and slightly hairy, generally with from one to seven dark bands; these bands, however, may be entirely absent. In some specimens there is a small black dot in the center of the second scallop of the central band, and others have irregular black dots and markings along this band.

♂.—The male is like the female, but has a more slender abdomen, and much longer legs proportionally. In addition to the genital spot he has a pair of black spots on the under side of the posterior abdomen. These occur sometimes on females and are often lacking on the males, but more commonly belong to the latter. The cephalo-thoracic bands and rims are usually olive-brown; the trophi are always red or red-brown, and the legs have a brownish tinge with the same hairs and bands.

Hab.—Oakland, Alameda County, and Olema, Mendocino County, California. It is probably a Pacific coast species.

The name *inconstans* was chosen by Mr. Curtis because of the numerous variations in coloration exhibited by individuals of the species. These variations are definite and constant, so that there are included in the species eight distinct varieties besides the species type. These varieties breed true to their characters, and

yet are all capable of crossing. The facts were determined by Mr. Curtis by a series of experiments in cross mating and rearing of young continued through two years.

This species is most commonly found in groves under the foliage of broad-leaved plants and shrubs, usually choosing for its domiciles stiff leaves with entire margins, such as those of the live-oak, silver poplar, young cottonwood, holly and blackberry. But little web is made. A leaf or two are bent and tied together by two or three cables or a network of interlaced lines, the latter fulfilling the purpose of a stay, an entangling obstruction against intruders from below, and a trap for capturing prey.

Regarding the effect of the poison of the spiders Mr. Curtis records observations of twenty-six instances. The longest time from biting to death was in the case of a fly, bitten on the leg, which lived two hours and fifteen minutes. The shortest time was four minutes. The average time of twenty-five instances (the very long one already referred to is excepted) was about fourteen minutes. In twelve cases only one bite was afflicted. In the remaining cases from two to six bites were made.

Detailed observations on the mating habits were made. In eight instances the deposition of the seminal fluid on a line and the application of the palpi to this fluid was observed.

Mr. Curtis describes the process of cocoon making. By the aid of mirrors arranged about a captive female he observed the details of cocoon construction. Cocooning is begun in late March and early April by fertile females who attained maturity the Fall of the year before and perhaps then made a few cocoons, afterwards passing the Winter in a more or less dormant condition. The new females and males begin maturing during March and April. After mating they begin in May to add their cocoons to those of the older females, and from this time on to July the young of the proceeding year continue to come into line, swelling the number of cocoons and bringing the season to its height in June, July, August and September. Each female makes from one to five cocoons at intervals of about a month; each cocoon contains from fifteen to one hundred eggs which usually hatch in from thirteen to twenty-three days, some not hatching for thirty days. Their growth after hatching is slow, at least in captivity. Of twenty-three young raised during the Winter of 1890–91, all except eight took over two hundred days to mature. The longest

time was two hundred and forty-nine days, the shortest one hundred and twenty days. With the Spring young the time is still longer.

A very elaborate series of observations on the development (in course of growth) of the coloration and the character and disposition of the pigments cannot be touched on here at all. At best, only a few details of the many recorded by the patient student can be referred to. Accompaning the notes are many drawings, most of them in colors, illustrating especially the studies on coloration development. It may be that these observations and drawings can be elsewhere published. They are distinctly worth publication.

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THE THIRD AMERICAN KERMES.

By T. D. A. COCKERELL.

Kermes is a genus of Coccidæ, found, with one exception, on oaks. In Europe there are several species, one of which, at least, furnished a red dye to the ancients. North America has only two species yet described, a third is added herewith:—

Kermes bogueî n. sp.—♀ scale occurs on the twigs, two or three together. Globose, slightly oval; length about 6½, breadth 5¾, height 5 mm., varying a little in these proportions. Surface without gibbosities, not very shiny; with a lens one sees that it presents innumerable dull rugosities with intervening shiny lines. The general color is dark; there are five suffused, more or less broken bands of dull scarlet; the areas between these are whitish, but largely occupied by broken black lines or stripes. There are also transverse blotchy bands of black, much interrupted. The general effect produced is an irregular blotching of scarlet, black and dull white; the black may predominate and make a dark scale in which the scarlet and white are not so readily noticed.

The ♀, boiled in caustic soda, turns the liquid claret color. Dermis very slightly brownish by transmitted light, almost colorless. Round gland-orfices, and short spines in places. There are patches of very distinct tessellation.

Young larva reddish purple (after boiling), with light yellow legs and antennæ. It is elongate, but not excessively so, being not very much more than twice as long as broad. Antennæ 6-jointed; 3 longest, but not quite twice as long as broad; 6 nearly as long as 3, 2 a little broader than long, 5 shortest. Formula 36 (21) 45. Margin with a row of spines, averaging about as far apart as the length of one. Caudal tubercles elongate, blunt, each with a spine like the marginal ones, and a very long caudal seta. Claws slender, curved. Tarsus twice as long as tibia. Rostral loop reaching to base of hind legs.

Hab.—On *Quercus alba*, growing in the sand on the shore of a small pond about ten miles from Stillwater, Oklahoma, Aug. 26, 1896 (Prof. E. E. Bogue). *A. eulecanium* occurred on the same trees.

K. boguei differs from *K. galliformis* by its larger size, dull roughened surface and dark color, showing red. From *K. gilletei* it differs entirely in the scale, and also in its much less elongate larva. Of the European species, it is nearest, perhaps, to *K. variegatus*, which occurs in the south of France.

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ON TWO REMARKABLE CALIFORNIAN HEMIPTERA.

By E. BERGROTH, M.D., Tammerfors, Finland.

Fam. CAPSIDÆ.

Dacerla inflata Uhl.

In the Bulletin de la Soc. Ent. de France, 1881, p. clvii, the late Dr. Signoret published a short description of a singular new Californian genus of Hemiptera, naming it *Dacerla* and placing it in the division Myodocharia of the family Lygæidæ. In examining Signoret's type two years ago, I at once found that it had nothing to do with the Myodochinæ. Judging from the *facies*, and without examining the under side of the unique carded specimen, I thought it was an aberrant genus of Pyrrhocoridæ, allied (though not very nearly) to the American genera *Arrhaphe* H.-Sch., *Phœax* Dist. and *Japetus* Dist., and to the African genus *Myrmoplasta* Gerot., and upon my suggestion it was so placed in vol. ii, of Lethierry and Severin's "Catalogue général des Hémiptères." In the Proceedings of the California Acad. Sci., 1894, Prof. Uhler described a new genus and species under the name *Myrmecopsis inflatus*, considering it to be a "Capsid, related to *Pilophorus*." This insect is identical with the *Dacerla mediospinosa* of Signoret, but as the French author gave no description at all of the *species*, specific name proposed by Uhler must stand. The genus, however, although very imperfectly described by Signoret, must bear the name *Dacerla*, the more so as the name *Myrmecopsis* is twice pre-occupied in Hymenopterology. Having now examined the under side of the body, I find that Uhler is perfectly right in placing it in the Capsidæ. It is, indeed, related to the divisions Pilophoraria and Myrmecophyaria

of Reuter, and, as the first tarsal joint is longer than the second, and the arolia are scarcely visible, it will probably be better to place it in the former division.

Fam. REDUVIIDÆ.

Harpactor americanus n. sp.—Head hairy, a little shining, black, a spot between the ocelli, a lateral vitta running from the ocelli to the anterior angles of the eyes, ante-ocular part at least at the sides, and the throat red; ante-ocular and post-ocular part of the same length; rostrum red, piceous at apex, first joint hardly longer than the ante-ocular part of the head, second joint distinctly longer than the first; first joint of the antennæ as long as the head, blackish, broadly annulated with rufous in the middle or sometimes entirely red except apex, second joint considerably shorter than the first, entirely fuscous or rufous with apex black (remaining joints wanting). Pronotum a little longer than the head, smooth, hairy, subnitid, anterior angles bluntly tuberculate, lateral angles rounded, not prominent, basal margin feebly and broadly sinuate; anterior lobe scarcely tuberculate at the sides of the longitudinal furrow; color of pronotum black, the lateral angles, the postero-lateral margin and the basal margin of the hind lobe red, sometimes also a short red streak on the lateral margin of the fore lobe; in fresh specimens some narrow grayish sericeous bands on the disc of the fore lobe. Breast black, the middle of antepectus and the acetabula red; scutellum black; hemelytra a little longer than the abdomen, corium red, with the clavus sometimes blackish, membrane shining, more or less infuscated. Abdomen entirely red in the male, but in the female there is a quadrate black spot at the basal angles of the abdominal segments; spiracular seated very little before the middle of the segments. Legs red, femora, tibiæ and tarsi infuscated at apex, a subbasal ring to the tibæ and sometimes a spot or ring on the middle of the femora fuscous. Length 10–10.8 mm.

This is the first American species of the genus *Harpactor*, as characterized by Stal in Enum. Hem. iv, p. 13, under the name *Reduvius*. It must be noted, however, that the Siberian *H. leucospilus* Stal is distributed to Sitka in the East. In Europe the genus is represented by several species. *H. americanus* is a Northern or mountain species, inhabiting Shasta County, and was communicated to us many years ago by its discoverer, Mr. James Behrens. I have in vain waited to see this conspicuous insect described in one of the numerous writings of Prof. Uhler.

ENTOMOLOGICAL NEWS for March, was mailed Feb. 27, 1897.